120

QC2- Inspect parts off machine FAI/FAIB

0.00

120

QC

Memo

0.00

JM12-11-10

Quality Control

NCR:	Yes	/	No	

NCR:	Yes	/ No				WORK ORDER NON-	COI	VFORM	/IANCE / UPI	DATE	QA Closed:	Date:	7
Morti Ord					· · · · · · · · · · · · · · · · · · ·	DISPOSITION		(· · · · · · · · · · · · · · · · · · ·		AGAINST DE	PARTMENT		
Work Orde Part I NCR I	No.	·	-			Rework Scrap Use-as-is Work Order Update		f Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	4	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root			l "		Desc	ription of work order update	<u> </u>	Initial	Act	ion	Sign &		
Cause		Date	Step	Qty		or Non-conformance		ief Eng		ription	Date	Verification	QC Inspector
oc/Data quip/Tooling perator faterial etup ther rocess upplier raining	ta poling pr					T CATE	CORV						
		<u> </u>					AUL	T CATE	JORY				
Landing Gear Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion		General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing		Instructi Mainte Mislabe Misread Offset	on Incomplete ions Incomplete/L nance Ied	Jnclear	Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned W Power Loss/	ssing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other				
	Torque Waves in Extrusion Turning Sequence				Finish		1	eauence					

Outside Dimensions

DQA:

Date:

Wave/Twist in Tube

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

October-31-12	1:42:44 PM											:	
Item ID: Revision ID: Item Name: Start Date: Required Date:	647.1816 Support LH 10/31/12 11/09/12	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*	Accept	*N900 Cust Item I Customer:		100)* s	-	Start	*N!	S1* S2*	;
Reference: Approvals:	Process Pl	an:	Date:	Tooling: SPC (Y/N):		ate:		F		Start Stop	*NI	₹1* 	
Sequence ID/ Work Center II 130 *130* QC Quality Control		Operation Description QC8- Inspect parts - sec	and check	Set Up/ Run Hours 0.00 0.00 15 15	Tool ID	Tool#	Plan Code	Accept Qty	Rejec Qty		Reject Number	Insp. Stamp	; ;
*140 *140* Brake NC Brake NC		Form as per dwg Memo		0.00								50 121	u(2
150 *150* QC Quality Control		QC5- Inspect part comp Memo	leteness to step on W/O	0.00 D 11 25	3				· .	· .			

:NCR:	Yes /	No				WORK ORDER NON-	CO	NFORM	MANCE / UP	DATE			المنجع المنافعة
:											QA Closed:	Date:	<i></i>
: Work Orde	er:					DISPOSITION	7			AGAINST DE	EPARTMENT		
Part I	No					Rework Scrap Use-as-is		I .	Skid-tube Machining noforming	Crosstube Small Fab Finishing	┥	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR I	No					Work Order Update]		Large Fab	Composite	<u> </u>	Supplier	
Root					Descri	ption of work order update		Initial	Ac	tion	Sign &		
Cause	D	ate	Step	Qty	(or Non-conformance	Cł	nief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling													
Operator	Ц										1.		
Material				:									
Setup				į				_					
Other	Щ							7.					
Process								ر ا					•
Supplier	_												
Training								·					
Unapproved							1				<u>i</u>		
111							AUI	LT CATE	GORY				
Landii	ng Gear	1.			_	General	_	la :			٦ ،		-
		ding			~/c	Bend BOM/Rauta	-	Grain		<u>· </u>	Ovalized		Pressure/Forced
	Crac		t Concer	itric to	^{J/5} -	BOM/Route	-	Hardwa		<u> </u>	Over/Under		Temperature/Cure
	—				<u> </u>	Broken/Damaged	\vdash	4	on Incomplete		Part Incorre		Weld
	Cuff		rimped.			Burrs	\vdash	Mainte	ions Incomplete/	Unclear	Part Lost/M	ssing	Wrong Stock Pulled
					-	Countarion	\vdash	iviainte	nance	<u> </u> -	Part Moved	Mana	
•	Heat Treat		<u> </u>	Countersink	-	Mislabeled		<u> </u>	Positioned V	_	loss		
	Inspection Strip in Tube Ripples in Bend		<u> </u>	Cut Too Short Drill Holes	\vdash	Misread	I	L_	Power Loss/	Surge	Other		
	— 1 ``			- د امریسفی	_	1	\vdash	Offset	- 1:1 a :				
	liord	ine Ma	aves in E	xtrusioi	1	Drawing	1	Jour of C	Calibration				

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finișh

Work Order ID 92551 *92551* Page 3 October-31-12 1:42:44 PM *N900040100* Setup Start 647.1816 Accept Item ID: **Revision ID:** Stop Support LH Item Name: 10/31/12 Start Qty: 1.00 **Start Date: Cust Item ID:** Required Date: 11/09/12 Req'd Qty: 1.00 **Customer:** Reference: Run Date: Tooling: Approvals: Process Plan: Date: Stop **SPC (Y/N):** Date:_____ Date: QC: Reject Insp. Sequence ID/ Tool ID Tool # Plan Accept Reject **Operation** Set Up/ **Qty** Code **Qty** Number Stamp Work Center ID Description **Run Hours** 160 Outsource process-Anodize per QSI017 4.1.10.1 0.00 *160* Outsource4 0.00 Memo Outsource process - Anodize HARD ANODIZE, COLOR BLACK AS PER DWG.(SEE NOTE 2) Receive & Inspect for Damage & Mat'l Certs 0.00 170 *170* Packaging 0.00 Memo Packaging

QC5- Inspect part completeness to step on W/O

Memo

180

QC

120

Quality Control

												DQA:	Date	:
NCR:	Yes	/ No				WORK ORDER NON-O	COI	NFOR	MANCE / UP	DATE				. *
											QA CI	osed:	Date	•
Work Ord	er:					DISPOSITION				AGAINST DI	PARTI	NENT	/PROCESS	
Cause Date Step Qty					Rework Skid-tube Scrap Machining Use-as-is Thermoforming Large Fab ription of work order update Initial				Crosstube Small Fab Finishing Composite	Small Fab Prod. Eng. Coor. Finishing Rec/Store/Packaging			Engineering Quality Other	
Root					Descri	ption of work order update		Initial Action			Sign	1 &		
Cause	se Date Step Qty ta Dooling				. (or Non-conformance	Ch	ief Eng	Desc	ription	Da	ite	Verification	QC Inspector
Doc/Data		D												
Equip/Tooling														
Operator													i	
Material														
Setup														
Other														
Process								-			1			
Supplier						·								ĺ
Training														}
Unapproved													1	
						F	AUL	T CATE	GORY					·
Landi	ng (Gear				General								
		Bending				Bend		Grain			Ovaliz	ed		Pressure/Forced
	Centre Not Concentric to O/S		o/s	BOM/Route	Г	Hardwa	re		Over/	Under	tolerance	Temperature/Cure		
	Cracks			Broken/Damaged		Inspecti	on Incomplete		Part Ir	corre	ct	Weld		
	Crushed/Crimped			Burrs		Instruct	ions Incomplete/	Unclear	Part Lo	ost/M	issing	Wrong Stock Pulled		
		Cuffs				Contamination		Mainte			Part N	1oved		-
	Heat Treat				Countersink		Mislabe	led		Positio	oned \	Vrong		
	Inspection Strip in Tube				Cut Too Short		Misread		T				Other	

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Orde		2551		*925	551*						Page 4
Item ID: Revision ID: Item Name: Start Date:	647.1816 Support LH 10/31/12	Start Qty: 1.00	*1*	Accept	*N900		100)* s	etup Star Stop	I VI	S1* S2*
Required Date:		Req'd Qty: 1.00	*1*		Customer:						i
Reference:			•						~.		
Approvals:	Process Pl	an:	Date:	Tooling:	D	ate:		R	lun Star	171	R1*
	QC:	A8-11-	Date:	SPC (Y/N):	D	ate:			Stop	*N	R2*
Sequence ID/ Work Center II)	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
*190 *190 *SprayPaint Spray Painting		Memo PRIME IAW	/ MIL-P-23377J TYPE1	0.00 0.00 CLASS N AS PER DWG.	(SEE NOTE 2)				<u>Ø</u> _	_\$	13-3-22
		CARDINAL	. 4860-50 PRIMER BAT	CH: 134204					*		
²⁰⁰ *200*		QC14- Inspect Spray Pai	nt	0.00				/			DAG 05 BA
QC Quality Control		Memo		0.00							_ <u> </u>
210		Identify as per dwg & St	ock Location: <u>/35</u> (0.00				/	/3/	10	61
710 Packaging		Memo		0.00					1-1-9	/_&	- (/

IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV

Packaging

										DQA:	Date:	*
NCR: Yes	/ No				WORK ORDER NON-	CON	IFORI	MANCE / UP		QA Closed:	Date:	
Work Order				,	DISPOSITION				AGAINST DEI	PARTMENT	/PROCESS	
	Root Date Step Qty				Rework Scrap Use-as-is Work Order Update		Skid-tube Crosstu Machining Small F Thermoforming Finishi Large Fab Compos				Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root				Descri	ption of work order update	lı	nitial	Act	tion	Sign &		
Cause	Date	Step	Qty	(or Non-conformance	Chi	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data									-			
Equip/Tooling												
Operator												,
Material						ŀ						
Setup				, and the second								
Other						1						
Process						1						
Supplier												
Training												
Unapproved												
						AUL	T CATE	GORY				

Landing	Gear	General				_
	Bending	Bend	Grain	Ovalized		Pressure/Forced
	Centre Not Concentric to O/S	BOM/Route	Hardware	Over/Under tolerance	L	Temperature/Cure
	Cracks	Broken/Damaged	Inspection Incomplete	Part Incorrect		Weld
	Crushed/Crimped.	Burrs	Instructions Incomplete/Unclear	Part Lost/Missing		Wrong Stock Pulled
	Cuffs	Contamination	Maintenance	Part Moved		
	Heat Treat	Countersink	Mislabeled	Positioned Wrong		_
	Inspection Strip in Tube	Cut Too Short	Misread	Power Loss/Surge		Other
	Ripples in Bend	Drill Holes	Offset			
	Torque Waves in Extrusion	Drawing	Out of Calibration			
	Turning Sequence	Finish	Out of Sequence			
	Wave/Twist in Tube	Folio	Outside Dimensions			

'Work Ord October-31-12		551		*925	551*							Page
Item ID: Revision ID: Item Name:	647.1816 Support LH			Accept	*N900	040	100)* s	Setup Sta	art		S1* S2*
Start Date: Required Date Reference:	10/31/12 e: 11/09/12	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item I Customer:	D:						
Approvals:	Process Pla	an:	Date:	Tooling: SPC (Y/N):		ıte:		R		art cop		R1* R2*
Sequence ID/ Work Center	ID .	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty		Reject Number	Insp. Stamp

0.00

0.00

QC21- Final Inspection - Work Order Release

Memo

220

Quality Control

Page 5

NCR:	Yes	/	No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA:	Da	to:		
DQA.	Da	ie.	<u> </u>	
	,			
				•

								·		QA Closed:	Dat	e:	
Work Orde	r·	_			DISPOSITION				AGAINST DE	PARTMENT	PROCESS		
Part N					Rework Scrap		ı	Skid-tube Machining	Crosstube Small Fab	4	Water Jet	Engineering Quality .	
NCR N	0				Use-as-is Work Order Update			noforming Large Fab	Finishing Composite	Rec/Stor	e/Packaging Supplier	Other	
Root				Descri	ption of work order update	Ir	nitial	Ac	tion	Sign &			
Cause	Date	Step	Qty	· ·	or Non-conformance	Chi	ief Eng	Desc	ription	Date	Verification	QC Inspector	
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training													
Unapproved		l				A (U 3	T CATE	SORV.					
Landin					General	AUL	CATE	JORT					
Landin	Landing Gear Bending Centre Not Concentric to O/S Cracks		o/s	Bend BOM/Route Broken/Damaged		Grain Hardware Inspection Incomplete			Ovalized Over/Under Part Incorred	ct	Pressure/Forced Temperature/Cure Weld		
-	Crushed/ Cuffs Heat Trea	·			Burrs Contamination Countersink	口	Instruct Mainte Mislabe		/Unclear	Part Lost/Mi Part Moved Positioned V		Wrong Stock Pulled	j
-	Inspection Ripples in	n Strip in	Tube		Cut Too Short Drill Holes	口	Misread Offset			Power Loss/	, ,	Other	
	Torque W	aves in E	xtrusion	n [Drawing		Out of 0	Calibration					
-	Turning Sequence		Finish Folio	\blacksquare	Out of Sequence Outside Dimensions								

Picklist Print

October-31-12 1:42:44 PM

Page 1

Work Order ID:

92551

Parent Item:

647.1816

Parent Item Name:

Support LH

Start Date: 10/31/12

Required Date: 11/09/12

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP REV:A 12.10.03 NEW ISSUE DD VERF:JFS

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3S.063 2024-T3 .063 sheet		Purchased	No	,		110	sf	31.6700	0.3155	0.33 210 53			Jm12-11-1
				Location		Loc Qty	<u>Lo</u>	c Code					•
				MAT022		31.67							
				1199	916	0.1							
				1211	197	16.32							
				1230)96	15.25			123	3096			

												DQA:	Da	ate:	
NCR: Yes / No						WORK ORDER NON-CONFORMANCE / UPDATE				·		_	*		
		_										QA Closed:	Da	ite:	
Work Ord	or:					DISPOSITION			****	AGAINST [DΕ	PARTMENT	PROCESS		
WORK Ord	er					Rework	7		Skid-tube	Crosstube		1	Water Jet	\Box	Engineering
Part I	Vο					Scrap	-	•	Machining	Small Fab		Pro	d. Eng. Coor.	\vdash	Quality
	-					Use-as-is	1	7	noforming	Finishing		4	e/Packaging	\blacksquare	Other
NCR I	No.					Work Order Update		•	Large Fab	Composite			Supplier	-	
				-		·									<u> </u>
Root		·			Descri	ption of work order update		Initial	Ac	tion		Sign &			
Cause	,	Date	Step	Qty	(or Non-conformance	Ch	nief Eng	Desc	ription		Date	Verification	n	QC Inspector
Doc/Data		ļ					1	:							
Equip/Tooling															
Operator										,					
Material	Ш													ļ	
Setup														1	
Other															
Process	Ш						ŀ								
Supplier	Ш													1	
Training												,			
Unapproved															
						F	AUL	T CATE	GORY						
Landi	ng Ge	ar				General		•		_		,			
	Шв	ending				Bend	<u></u>	Grain				Ovalized			Pressure/Forced
	Щc	entre No	t Concer	ntric to (o/s	BOM/Route	_	Hardwa	re	L		Over/Under	tolerance	Ш	Temperature/Cure
Cracks		Broken/Damaged		Inspecti	on Incomplete	~ [Part Incorred	ct	Ш	Weld				
	\bigsqcup_{C}	rushed/C	rimped.			Burrs		Instruct	ions Incomplete/	Unclear		Part Lost/Mi	ssing		Wrong Stock Pulled
Cuffs			Contamination	Maintenance				Part Moved							

Mislabeled

Out of Calibration

Out of Sequence

Outside Dimensions

Misread

Offset -

Positioned Wrong

Power Loss/Surge

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

Countersink

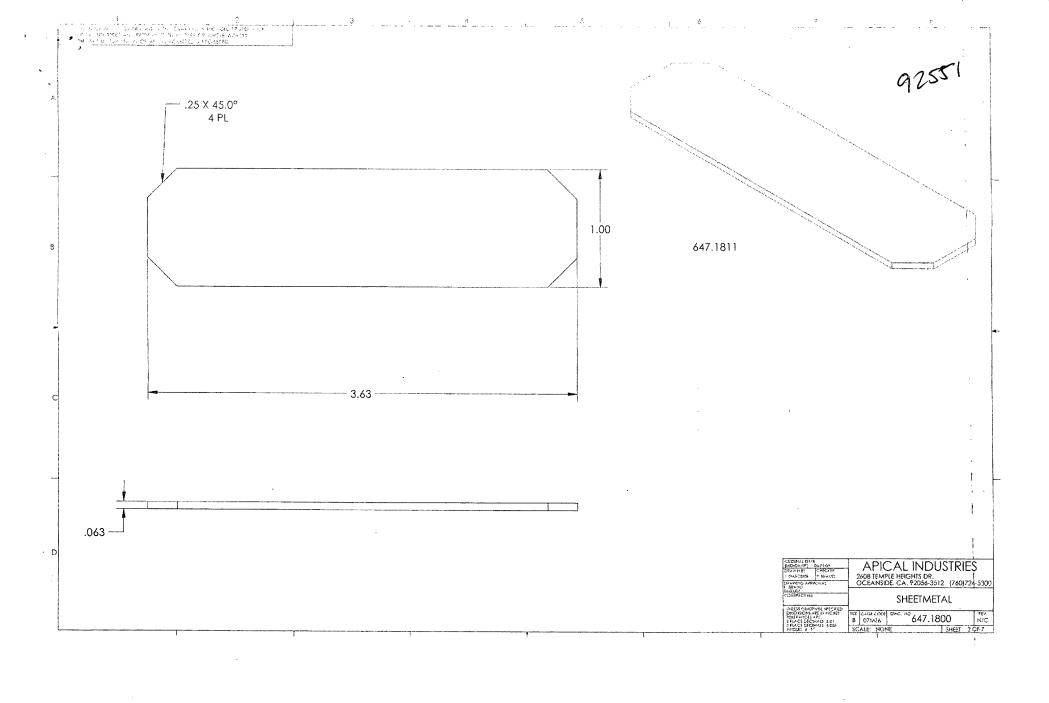
Cut Too Short

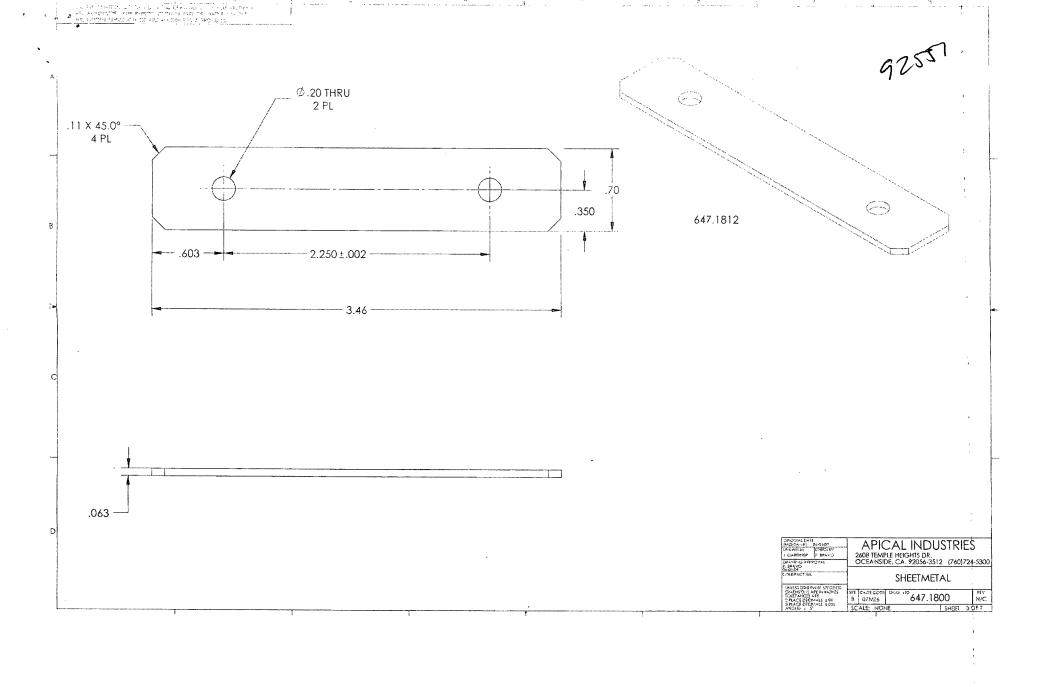
Drill Holes

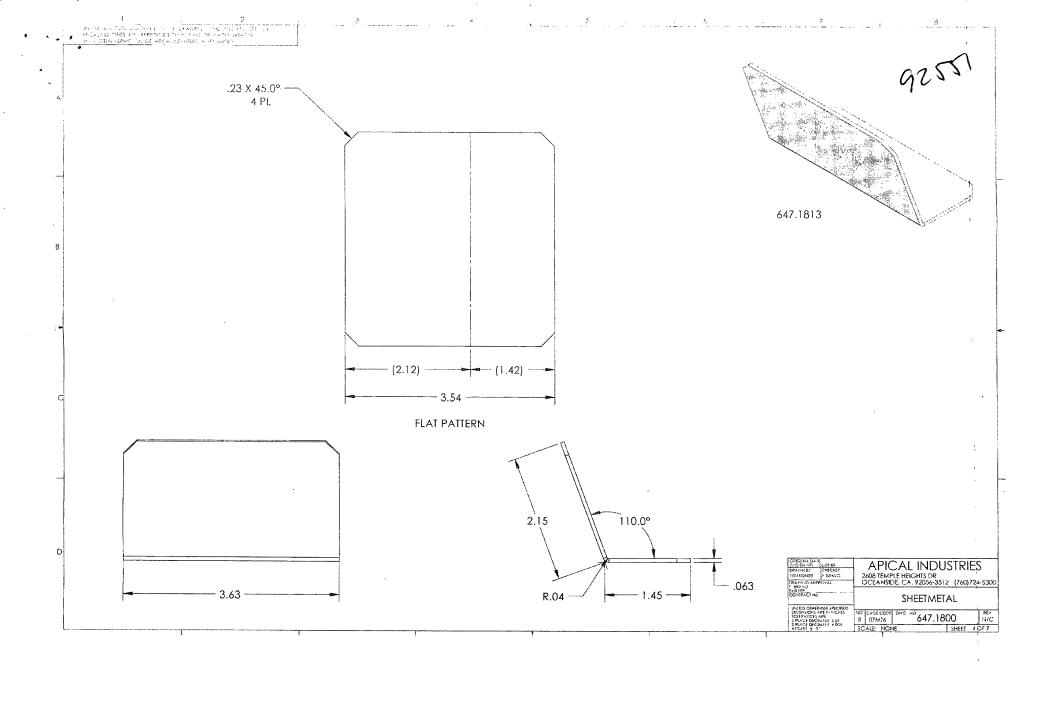
Drawing

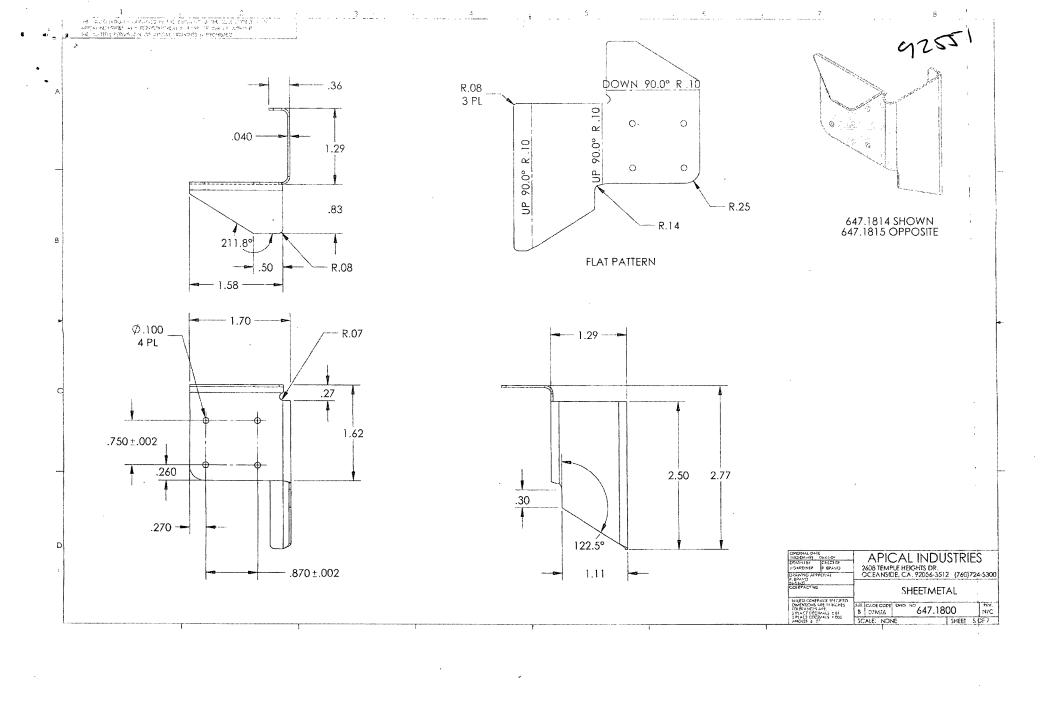
Finish

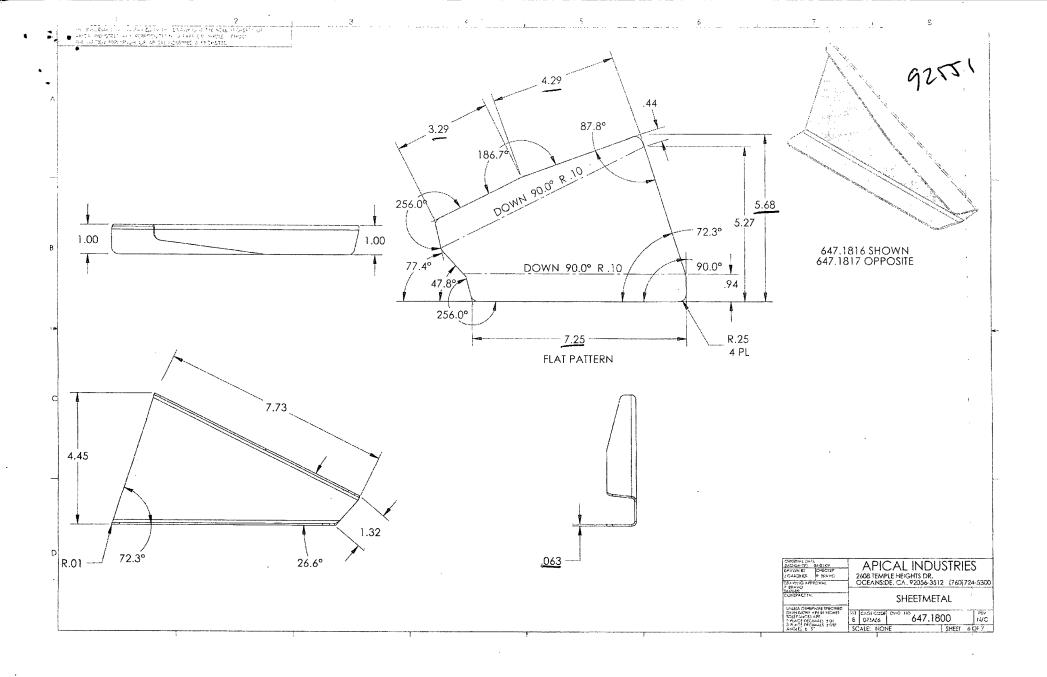
SHOPCOLL NOTES: RETURN (1) ENGINEER 35 MATERIAL: ALUMINUM 2024-13 PER AMS-QQ-A-250/4 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK; CARDINAL 4860-50 PRETREATMENT PRIMER PRIME IAW MIL-P-23377J TYPE I CLASS N UNCONTROLLED CY :: SUBJECT TO AMENIAMED WITHOUT NOTICE WORK ORDAR 3. DEBURR AND BREAK ALL SHARP EDGES NO. 92551MLJ 4. IDENTIFY IAW MPP-120 12-(1-0) Ø.102 2 PL -647.1810 2.00 .700 3.400 - 4.200 ±.002 · - 11.00 647.1818 NOSE DOOR SPACER 647.1817 SUPPORT, RH .063 647,1816 SUPPORT, LH 647.1815 GUSSET, RH 647,1814 GUSSET, LH 647,1813 ANGLE 647.1812 SHIM 647.1811 SPACER 647.1810 NOSE DOOR DOUBLER Δ DESCRIPTION FIND# PART# MAT'L QTY PARTS LIST APICAL INDUSTRIES NEXT ASSY (S) 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300 647.1300 PANYENC APPROVAL BY SECONSTACT PO SHEETMETAL 27F CAGECODE DE 647.1800 N/C

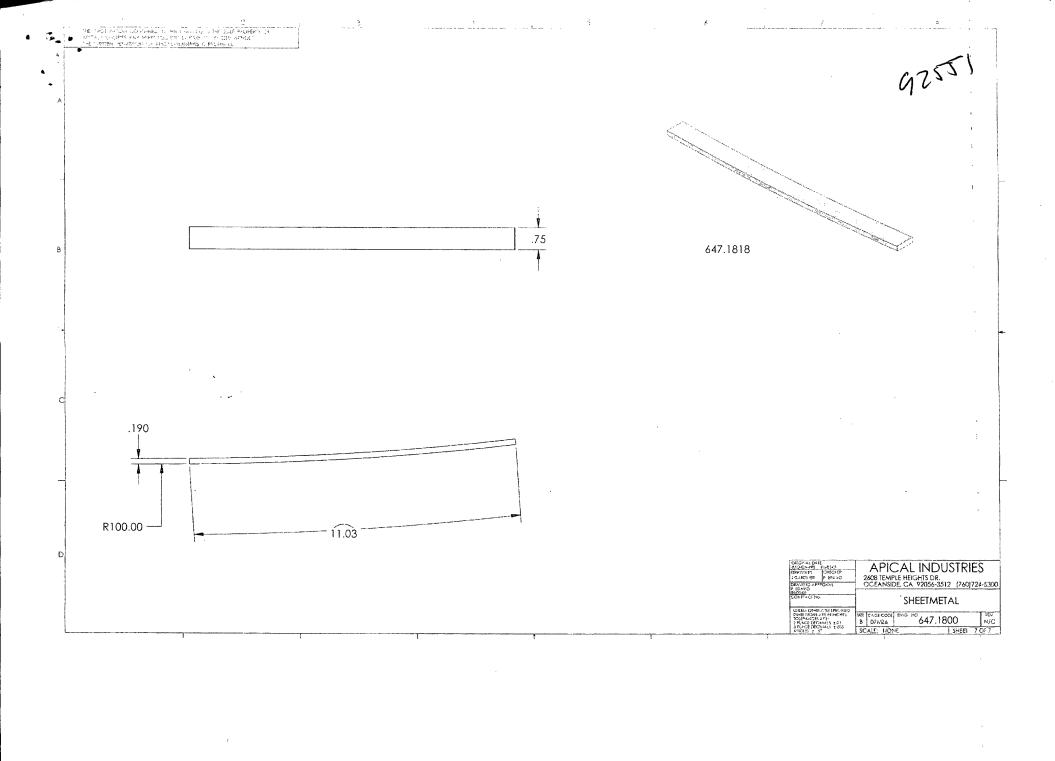












DART AEROSPACE LTD	Work Order:	92551
Description: Support LH	Part Number:	647,1816
V 1		·
Inspection Dwg://47.1800 Rev: 10/C		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of inspection	Comments
5,68"	4-0.010"	5.687"	- .		ν.	Produsos
4,29"	11-0.00	4,297			V	
3.29"	4- 000"	3.29 "	L		V .	
7.25	41-0010"	7.25"	<u></u>		V	
0.063	H- 0.010"	0.062	-		V	
					,	
***************************************				,	4.	
						·
						·
			1.15 1.15			·
:				J		
	,			·		

Measured by:	JM	Audited by:	215	Preliminary Approval:	
Date:	2-11-10	Date:	1211 12	Date:	

				<u> </u>		
Rev	Date	Change	4,	:	Revised by	Approved
E	10.04.14	Added preliminary approval		. 4 . 4	KJ	3,66,000

A 10.04.15



A.T.G. Industries Inc. 731, rue Industrielle Rd. PLATING DEPARTMENT Rockland, On K4K 1T2 Canada

Ph: (613) 446-4544 Fax: (613) 446-4556

Pack List

Date: 14-Jan-

To

DARI AFROSPACE LIED

1277 ABERDEEN ST.

HAWKESBURY, ON KGA TK7

Canada

Ship To

DART AEROSPACE LTD 1270 ABERDEEN ST HAWKESBURY, ON K6A 1K7 Canada

Ph: 613-632-5200

Fax: 613-632-1185

Fax: 613-632-1185

Ph: 613-632-520	0 Fax: 613-632-1185	Ph:	613-632-5200	Fax: 613-632-1185	
Terms	and the second s	Ship Via 👯 🕒	199		
Quantity	Description				*
1	Part: ASST		Rev:		
lot					
	24 PCS 647.2510				
	PASSIVATE PER QQ-P-35			•	
	1 PC 647.1613				
	12 PCS 647.1712 3 PCS 647.1810				
	40 PCS 647.1812				
	2 PCS 647.1843 1 PC 647.1816				
*	20 PCS 646.3312				
1	10 PCS 646.3714 40 PCS 646.3718				
	20 PCS 646.3811				
	6 PCS 647.7910 12 PCS 647.7912				
	6 PCS 647.7916				
	40 PCS 647.9012 10 PCS 647.9013				
	19 PCS 647.9016				
1	30 PCS 647.9016 30 PCS 647.9017				
	60 PCS 647.9017				
	HARD ANODIZE BLACK			•	
	MIL-A-8625 TYPE III CLASS 2				
	Job: 20130027	PO: PO18583	Line:		
		,			
			· · · · · · · · · · · · · · · · · · ·		



A.T.G. Industries Inc. 731, rue Industrielle Rd. PLATING DEPARTMENT Rockland, On K4K 1T2 Canada

Ph: (613) 446-4544 Fax: (613) 446-4556

Pack List

Ship To

DART AEROSPACE LTD 1270 ABERDEEN ST HAWKESBURY, ON K6A 1K7 Canada

To

Ph: 613-632-5200	Fax: 613-632-1185	Ph: 613-632-5200	Fax: 613-632-1185
Terms	Ship V	lia :	
			77
Quantity Desc	niption		
	Certificate of Conformance		
A.T.G with a	 Industries certifies that all items in this shi Il requirements, specifications and drawings 	pment are in conformance sreferenced in the purchase order.	
	ISO 9001 : 2008 REGISTERE ATG SALES-2010 TERMS AP	D PLY	
DATE	12///3_		·
CER	TIFIED SIGNATURE :		
RECI	EIVER SIGNATURE :		